



# CITY OF HAYWARD

## AGENDA REPORT

AGENDA DATE 7/28/98

AGENDA ITEM 8

WORK SESSION ITEM \_\_\_\_\_

To: Mayor and City Council  
From: Director of Public Works  
Subject: **AUTHORIZATION FOR EXECUTION OF AN AGREEMENT FOR PROFESSIONAL DESIGN SERVICES FOR A NEW WALPERT RESERVOIR PUMP STATION AND TRANSMISSION MAIN.**

### **Recommendation:**

It is recommended that the City Council approve the execution of an agreement with Carollo Engineers for professional design services to prepare plans, specifications and construction cost estimates for the construction of new pump stations at the South Walpert Reservoir, and a water transmission main (pipeline) from the pump station to the 500-zone reservoir, in an amount not to exceed \$390,000

### **Background/Discussion:**

The water service to the Hayward hills is provided by a series of tanks, called reservoirs, transmission mains and pump stations. The system is collectively referred to as the Highland Chain. The lower part of the system, beginning with two tanks at the lower elevations, is getting older, and somewhat outdated. Size, reliability issues, and having adequate quantity and pressure to feed pump stations, have become increasingly important concerns. These and other water-related issues were reviewed in the City's recently prepared water master plan.

The City's Water Distribution System Master Plan, prepared in 1996, noted that the Highland Chain water system would have to be rehabilitated and upgraded to improve reliability, both for daily operations and for emergencies. Subsequently, a detailed study of the water system was performed. The final report made specific recommendations to improve the Highland Chain's capability and reliability. The recommendations included **upsizing** the existing 16-inch main connecting the first Highland Chain Reservoir (250) to the second one (500), **upsizing** the pumps at the 250 Reservoir, installing a pump station at the South Walpert Reservoir to provide an alternate source of water to be pumped to the 500 Reservoir, and connecting the large South Walpert Reservoir to the 250 Reservoirs.

During the preliminary investigations for the design, staff realized that connecting the South Walpert Reservoir and the 250 Reservoirs would be very expensive due to the terrain and the need for crossing Ward Creek. It was determined that a better, more efficient alternative would be to construct a new pipeline between the South Walpert and 500 Reservoirs, and to install a primary pump station at South Walpert. This new approach is a more sound, long-term solution. It utilizes the huge capacity of the South Walpert Reservoir (5.3 million gallon, as opposed to 1.0 million gallons at the 250 Reservoir), and it provides a second connection between the lower level reservoirs and the Highland Chain. Equally as important, the water in the South Walpert Reservoir that currently has low turn over (stays in the tank a long time) would instead be pumped up the Highland Chain, hence improving water quality.

As a condition of approval for Blue Rock Country Club on the Walpert Ridge, the proponents must provide a proportionate share for certain water system improvements. This share is estimated at \$1,395,000 for upgrading the existing 16-inch pipeline between 250 and 500 Reservoirs to 18 inches and constructing a waterline between Walpert and 250-Zone Reservoirs. This monetary contribution can be used towards the pump station and transmission main. Construction of the new Walpert

transmission main would accomplish the intended result and leave the existing 16-inch main as a backup facility. Other contribution estimates are \$150,000 for capacity improvement at the 250 Booster Pump and \$15 1,000 toward constructing the Walpert Booster Pump. Both of these contributions may now be used for the construction of the Walpert Pump Station.

**Consultant Selection:**

Four qualified firms were requested to submit proposals for the design. Two consultants declined, citing workload conflicts. A third declined because they could not compete with the expertise of Carollo Engineers. Carollo engineers did submit a proposal. Carollo Engineers is well qualified based on (1) their relevant experience, (2) the experience and qualifications of the project manager and design team, (3) the method of work proposed by them, and (4) they possess necessary resources to properly control the work and provide the desired quality. Carollo Engineers proposes to use an overall MBE participation of 16.4 percent. Based upon recent design work for Valle Vista Pump Station, Decoto Booster Station, as well as numerous watermain replacement projects, staff has concluded that the final negotiated not-to-exceed cost of \$390,000, including monies for additional services, is reasonable for the scope of services required.

**Project Cost:**

Design and administration	475,000
Construction	3,700,000
Construction administration and inspection	175,000
<b>Total</b>	<b><u>\$4,350,000</u></b>

**Funding:**

A total of \$3,530,000 has been approved in the Water System Capital Improvement Fund of the 1998/99 Capital Improvement Program for these projects. After costs are more refined through the design process, additional funds, as necessary, will be requested in the 1999/00 Capital Improvement Program.

**Schedule:**

The project will be constructed in stages. The pump station will be constructed first, followed by the watermain. In the interim between the two stages, the booster pump will utilize a smaller pipeline interconnecting the 330 and 500 zones to pump water to the 500-zone tank:

Begin design	August 1998
Design completion	July 1999
Award construction contract	September 1999
Complete construction	April 200 1

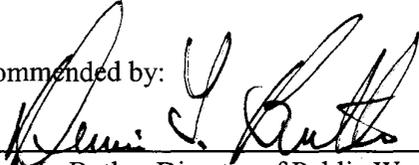
The attached resolution authorizes the City Manager to execute an agreement with the consulting firm Carollo Engineers for a maximum amount not to exceed \$390,000 for design, construction administration assistance and additional services.

Prepared by:



Alex Ameri, Deputy Director of Public Works

Recommended by:



Dennis L. Butler, Director of Public Works

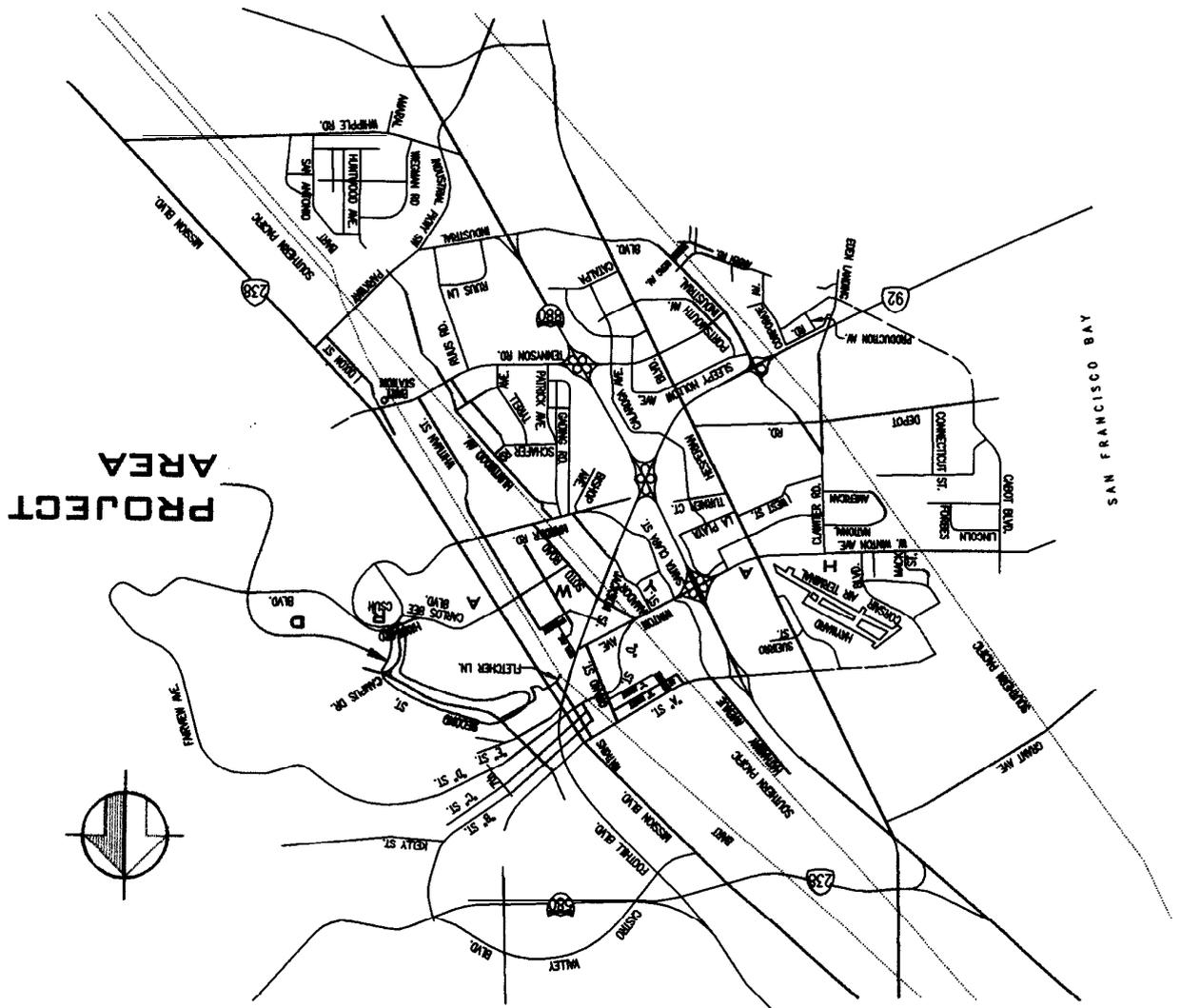
Approved by: ,



Jesús Armas, City Ma&&-

Attachments: Exhibit A: Project Location Map  
Exhibit B: Plan of Development

EXHIBIT A  
PROJECT LOCATION MAP



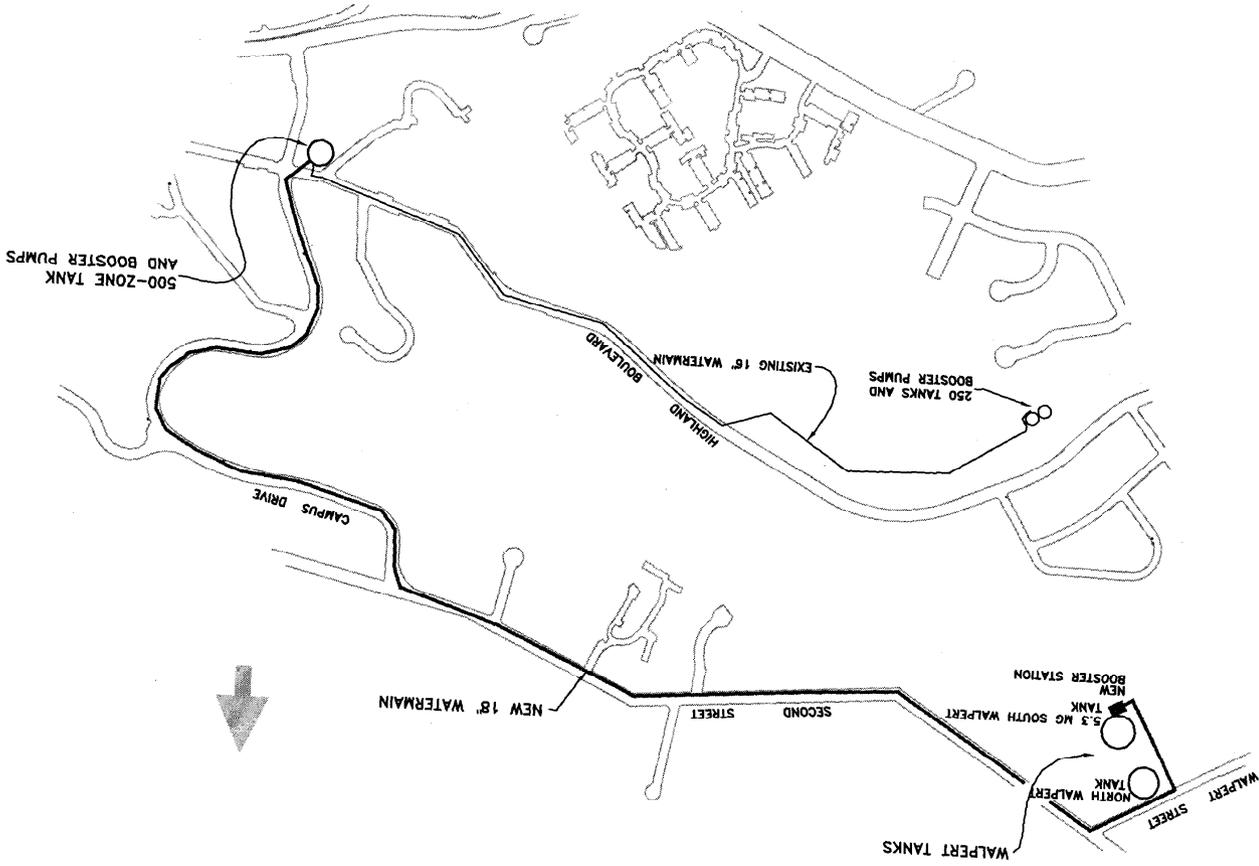


EXHIBIT B  
 PLAN OF DEVELOPMENT

**DRAFT**

*JB 7/16/98*

HAYWARD CITY COUNCIL

RESOLUTION NO. \_\_\_\_\_

Introduced by Council Member \_\_\_\_\_

RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE AGREEMENT BETWEEN THE CITY OF HAYWARD AND CAROLLO ENGINEERS FOR PROFESSIONAL SERVICES TO PREPARE PLANS, SPECIFICATIONS, AND CONSTRUCTION COST ESTIMATES FOR A NEW WALPERT RESERVOIR PUMP STATION AND TRANSMISSION MAIN, PROJECT 7123

BE IT RESOLVED by the City Council of the City of Hayward that the City Manager is hereby authorized and directed to execute on behalf of the City of Hayward an agreement with Carollo Engineers for professional services to prepare plans, specifications, and construction cost estimates for a new Walpert Reservoir Pump Station and Transmission Main, from the pump station to the 500-zone reservoir, Project No. 7123, in an amount not to exceed \$390,000, in a form to be approved by the City Attorney.

IN COUNCIL, HAYWARD, CALIFORNIA \_\_\_\_\_, 1998

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSTAIN:

ABSENT:

ATTEST: \_\_\_\_\_  
City Clerk of the City of Hayward

APPROVED AS TO FORM:

\_\_\_\_\_  
City Attorney of the City of Hayward